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No.

Supreme Court, U.S.  
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IN THE

**Supreme Court of the United States**

OCTOBER TERM, 1986

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**BENTLEY LABORATORIES, INC.,**

*Petitioner,*

v.

**SHILEY, INC.,**

*Respondent.*

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**PETITION FOR A WRIT OF CERTIORARI  
TO THE UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT**

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## **QUESTIONS PRESENTED**

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1. Has the Court of Appeals for the Federal Circuit neglected its Congressional mandate to clarify United States patent law by creating a vague and unprincipled standard for awarding punitive damages in patent cases, and by applying such a non-standard in a fashion that undermines this Court's unequivocal policy favoring good faith challenges to a competitor's patent?
2. When a manufacturer markets a product *before* a competitor's patent issues, and *before* the competitor charges infringement the manufacturer obtains and relies upon oral and written opinions of admittedly competent outside patent counsel that the product does not infringe, is the manufacturer a willful infringer and subject to trebled punitive damages and an award of attorneys' fees under 35 U.S.C. §§ 284, 285?

**STATEMENT PURSUANT TO RULE 28.1**

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American Hospital Supply Corp. is the parent corporation of petitioner Bentley Laboratories, Inc. Baxter Travenol Laboratories, Inc. is the parent corporation of American Hospital Supply Corp. Petitioner has no subsidiaries or affiliates.

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A .....	Appendix
JA .....	Joint Appendix Filed In CAFC
AF .....	Admitted Fact In The District Court
DX .....	Defendant's Exhibit In The District Court
PX .....	Plaintiff's Exhibit In The District Court



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**BENTLEY LABORATORIES, INC.,**  
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**PETITION FOR A WRIT OF CERTIORARI  
TO THE UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT**

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**OPINIONS BELOW**

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The opinion of the Court of Appeals for the Federal Circuit (CAFC) is reported at 794 F.2d 1561 and reprinted at A 1.

The memorandum decision of the United States District Court for the Central District of California is reported at 601 F. Supp. 964 and reprinted at A 17.

## JURISDICTION

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The judgment of the CAFC was entered on June 16, 1986 and affirmed the district court (A 42). The panel denied a timely petition for rehearing on the punitive damages issue on July 31, 1986 (A 43). However, on August 11, 1986 the CAFC requested Shiley to respond to Bentley's suggestion for rehearing *in banc*. On September 8, 1986, rehearing *in banc* was denied (A 44).

On October 16, 1986, Chief Justice Rehnquist extended the time for filing this petition to November 28, 1986.

This Court has jurisdiction under 28 U.S.C. § 1254(1).

## STATUTES INVOLVED

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Title 35, United States Code §§ 284, 285, reproduced at A 45.

## STATEMENT OF THE CASE

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### I. INTRODUCTION

Petitioner Bentley Laboratories, Inc. (Bentley) manufactures and sells bubble blood oxygenators in competition with respondent Shiley, Inc. (Shiley). Blood oxygenators are the life-sustaining machines used during open-heart surgery, such as bypass surgery, to infuse a patient's blood with needed oxygen when the heart cannot circulate blood through the lungs.

In 1980, more than three years after learning of Bentley's BOS oxygenators (JA 655), Shiley charged Bentley with infringement of two patents relating to blood oxygenators. In July 1981 Shiley sued for patent infringement. A jury found Shiley's patents valid and infringed and awarded Shiley compensatory damages in excess of \$17.5 million.

After concluding that Bentley's infringement was willful, the district court assessed punitive damages under 35 U.S.C. § 284 by doubling the compensatory award and also awarded Shiley its attorneys' fees under 35 U.S.C. § 285. As a result, more than \$18 million of the \$44,248,137.00 judgment (A 40-41) is attributable solely to Bentley's alleged willful infringement.

Contrary to proving willful infringement of Shiley's patents, the evidence shows that Bentley was merely a vigorous competitor, who sought and followed the advice of its outside patent counsel promptly upon learning of Shiley's patent. This kind of competitive activity is a typical fact pattern in patent cases.

## II. THE FACTS

Shiley began designing its blood oxygenators in mid-1976. By November 1976, Bentley had designed its BOS blood oxygenator and filed a request (a 510K report) with the Food & Drug Administration (FDA) for permission to test the BOS on humans (JA 1404-06).

The FDA required Bentley to run comparative studies against Shiley's units (JA 1404-08, 644-45). Bentley obtained four of Shiley's commercial oxygenators for such comparative testing (JA 1406-08). They were labelled "Patent Pend." (JA 606-07)

In October 1977, after obtaining FDA approval, Bentley started selling its BOS oxygenators (JA 1345; AF 5.37,

JA 46). By the time Shiley's first patent issued in December 1977, Bentley had been selling the BOS for two months.

During a routine search Bentley learned of Shiley's first patent shortly after it issued (JA 1420; AF 5.38, JA 46). A Bentley officer immediately discussed this patent with Bentley's outside patent counsel (James Geriak, Esq.), who had represented Bentley in patent matters for more than 15 years (JA 869, 1420). Geriak orally advised Bentley that the BOS did *not* infringe Shiley's patent (JA 1420).

Two years later, but still *before* Shiley accused Bentley of infringement, Geriak gave a second, written opinion to Bentley about Shiley's patents. After a detailed analysis he concluded that the BOS did *not* "raise any question of infringement." (DX 297, JA 2417; JA 868-69)

Even though Shiley was aware of Bentley's BOS oxygenators as early as the fall of 1977 (JA 655), Shiley never contended Bentley was infringing, or even notified Bentley of its patents, until November 13, 1980, three years later (JA 868, 756-58; PX 6305, JA 2579). Shiley brought this action in July 1981.

The CAFC's brief comment on the willfulness issue does not discuss or analyze any of the above facts, except to acknowledge that Bentley marketed its BOS at least a month *before* Shiley's patent issued (A 8-9). Instead, the CAFC merely reiterated its oft-repeated statement that willfulness is based on "the totality of the circumstances presented in the case" (A 9). The CAFC failed to discuss the factors or policies underlying an award of punitive damages in patent cases or how the award in this case furthers these policies.

In short, the CAFC continued to evade any meaningful guidance to the business or legal community about punitive damages in patent cases.

## REASONS FOR GRANTING THE WRIT

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The undisputed salient facts on the willfulness issue prove that Bentley acted prudently and in good faith: it designed the BOS oxygenator long *before* Shiley's patent issued; it began selling the BOS oxygenator two months *before* Shiley's patent issued; it *independently* became aware of Shiley's patent shortly after it issued; it *promptly* obtained a non-infringement opinion from its admittedly competent outside patent counsel; and it received a second, written non-infringement opinion *before* Shiley ever alleged infringement.

The obvious unfairness in assessing punitive damages on these facts pales in comparison to the chilling effect this decision and the CAFC's non-standard has upon free competition and good faith challenges to patents. By embracing a nebulous and unprincipled "standard" for awarding punitive damages, the CAFC has radically deviated from the prior consensus of the regional courts of appeals on this subject. This has created a confused and unintelligible legal "principle", in direct contravention of its Congressional mandate to clarify patent law.

As a result, the uncertain threat of punitive damages and an award of attorney fees forces competitors with bona fide defenses to capitulate by taking a license or abandoning their products, rather than challenge the patent and thereby rid the market of undeserved monopolies. The net effect, of course, is that invalid patents retain their vitality and consumers pay an unnecessary premium for goods in these markets.

The intervention of this Court is needed to enunciate the policies underlying punitive damages in patent cases,

clarify the CAFC non-standard on this subject, and resolve the hopeless conflict in the CAFC decisions. Regardless of how any such standard is applied to the facts of this case, the interest of consumers in free and fair competition in the marketplace, as well as fairness to patent litigants, cries out for a principled and consistent legal standard on this important issue—a standard the CAFC refuses to provide.

I.

**IN CREATING THE “TOTALITY OF THE CIRCUMSTANCES” STANDARD, THE CAFC RADICALLY CHANGED THE LAW OF PUNITIVE DAMAGES IN PATENT CASES**

Prior to the creation of the CAFC, the regional circuits had developed a uniform body of case law on willful infringement. Under this law, an accused infringer's good faith belief in the soundness of its defenses was, *per se*, a complete defense to a charge of willful infringement. *Square Liner 360°, Inc. v. Chisum*, 691 F.2d 362, 379 (8th Cir. 1982); *Lam, Inc. v. Johns-Manville Corp.*, 668 F.2d 462, 474 (10th Cir. 1982) (an “honest doubt” as to the patentee's right is a sufficient defense); *Deere & Co. v. International Harvester Co.*, 658 F.2d 1137, 1146 (7th Cir. 1981); *Wilden Pump & Eng'g Co. v. Pressed & Welded Prods. Co.*, 655 F.2d 984, 989 (9th Cir. 1981); *Western Elec. Co. v. Stewart Warner Corp.*, 631 F.2d 333, 336 (4th Cir. 1980), cert. denied, 450 U.S. 971 (1981); *Trio Process Corp. v. L. Goldstein's Sons, Inc.*, 612 F.2d 1353, 1361 (3d Cir.), cert. denied, 449 U.S. 827 (1980); *Eltra Corp. v. Basic, Inc.*, 599 F.2d 745, 757 (6th Cir. 1979); *Yoder Bros., Inc. v. California-Florida Plant Corp.*, 537 F.2d 1347, 1383 (5th Cir. 1976); *Rockwood v. General Fire Extinguisher Co.*, 37 F.2d 62, 66 (2d Cir. 1930).

Therefore, regardless of whether the infringer knew of the patent before starting the alleged infringing activities, obtained an opinion of counsel, or the like, there could be no finding of willful infringement if the defenses at trial had some substantive merit. The net result of this *per se* rule was that punitive damages were rare in patent cases, because infringers with only frivolous defenses rarely went to trial.

Upon obtaining exclusive jurisdiction of appeals in patent cases, the CAFC ignored this universal law and created a new standard. In *Underwater Devices, Inc. v. Morrison-Knudsen Co.*, 717 F.2d 1380, 1390 (Fed. Cir. 1983), the CAFC affirmed a willful infringement finding, and the imposition of trebled punitive damages, based on "the totality of the circumstances presented in the case." This "standard" has been reaffirmed in numerous subsequent CAFC decisions.<sup>1</sup> By endorsing a rationale that depends on all the facts, and focuses on none, the CAFC has adopted a non-standard that is little more than a vehicle for affirmance.<sup>2</sup>

This change in the law has dramatically increased willful infringement findings. A LEXIS search reveals that during the four year period (1979-82) preceding the creation

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<sup>1</sup> See, e.g., *Rolls-Royce Ltd. v. GTE Valeron Corp.*, 800 F.2d 1101, 1110 (Fed. Cir. 1986); *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 1579 (Fed. Cir. 1986); *Radio Steel & Mfg. Co. v. MTD Prods., Inc.*, 788 F.2d 1554, 1559 (Fed. Cir. 1986); *Central Soya Co. v. Geo. A. Hormel & Co.*, 723 F.2d 1573, 1577 (Fed. Cir. 1983).

<sup>2</sup> Of the eight cases that have come to the CAFC with a finding of willful infringement the CAFC has reversed only one: *State Indus., Inc. v. A.O. Smith Corp.*, 751 F.2d 1226, 1236 (Fed. Cir. 1985), because, as the CAFC said, "To willfully infringe a patent, the patent must exist . . ." Similarly, Shiley's patents did not exist when Bentley started the alleged infringement, but the CAFC affirmed anyway.

of the CAFC, in cases considering the willfulness issue, the regional courts of appeals found willful infringement in 4 of 13 cases—or 31% (*see Table 1, A 46-47*). From 1983 to date (one month less than four years), in cases considering the willfulness issue, the CAFC has found willful infringement in 10 of 17 cases—59% (*see Table 2, A 48-49*).

Bentley does not challenge the CAFC's authority to deviate from the unanimous prior authority of the regional circuits, although it obviously has shifted the burden to the accused to prove *non-willfulness*. However, the CAFC has refused to provide methodology or meaningful guidelines to determine the "totality of the circumstances." For example, what are the relevant circumstances and how are they to be weighed? The result has been utter confusion and conflict in the CAFC's decisions, uncertainty for litigants, a chilling effect on good faith challenges to patents, and increased costs to consumers.

## II.

### **THE VAGUENESS OF THE CAFC STANDARD HAS CREATED CONFLICTS WITH PREVIOUS AND SUBSEQUENT CAFC DECISIONS**

Bentley designed and sold the BOS oxygenator months *before* Shiley's patent issued; *independently* became aware of Shiley's patent shortly after it issued; *promptly* obtained a non-infringement opinion from its competent<sup>3</sup> outside patent counsel; and received a second, written non-infringement opinion *before* Shiley ever charged Bentley with infringement.

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<sup>3</sup> The district court specifically held that "the competency of counsel is not an issue." (A 22, n.7) Shiley never challenged this on appeal.

The CAFC cases that have found no willful infringement are summarized in Table 3 (A 50). Table 3 reveals that the salient facts in the present case are more favorable to a holding of no willful infringement than the salient facts in *all* those cases where the CAFC found no willful infringement. In short, the decision in this case is in irreconcilable conflict with *all* seven decisions in which the CAFC has found no willful infringement.

Bentley was able to bring most of these conflicting decisions to the attention of the CAFC in its Petition For Rehearing With Suggestion For Rehearing *In Banc*. (The *Rolls-Royce* case had not yet been decided.) Although the CAFC requested Shiley to respond to Bentley's Petition, it declined *in banc* consideration. Thus the CAFC persists in its refusal to clarify this important area of patent law.

A. *Rolls-Royce Ltd. v. GTE Valeron Corp.*, 800 F.2d 1101 (Fed. Cir. 1986)

The CAFC affirmed a finding of no willful infringement when the defendant, with full knowledge of plaintiff's patent and *without* obtaining an opinion of counsel, proceeded to market the accused device merely because a lay-employee concluded the device "was different" from plaintiff's patent. Defendant's expert testified that defendant "did not copy." The CAFC concluded that this was not willful infringement under the "totality of the circumstances." *Id.* at 16-20.

Compared to the defendant in *Rolls-Royce*, Bentley was far more prudent and cautious. Bentley designed and sold its BOS oxygenator long *before* Shiley's patent issued. Bentley sought and relied upon the opinion of its experienced outside patent counsel promptly upon learning of the patent. Counsel advised both orally and in writing that

Bentley's BOS did not infringe *before* Shiley ever alleged infringement.

**B. *State Indus., Inc. v. A.O. Smith Corp.*, 751 F.2d 1226 (Fed. Cir. 1985)**

The CAFC reversed a finding of willful infringement when the defendant marketed the accused product *before* plaintiff's patent issued, but did not seek advice of counsel until *after* plaintiff sued for infringement. Before the patent issued, defendant had obtained plaintiff's commercial product with a "Patent Applied For" notice. *Id.* at 1234-36.

Bentley also marketed its BOS before Shiley's patents issued and had obtained Shiley's product marked "Patent Pend." In addition, Bentley received a non-infringement opinion (in fact *two* non-infringement opinions) *before* Shiley charged infringement.

**C. *American Original Corp. v. Jenkins Food Corp.*, 774 F.2d 459 (Fed. Cir. 1985)**

Citing *State Industries*, the CAFC affirmed a finding of no willfulness because, even though defendant may have been aware of plaintiff's pending application, "[t]o willfully infringe a patent, the patent must exist . . . ." After issuance, defendant learned of the patent independently and relied upon the oral opinion of a *non-lawyer* to make a design modification to its existing product. The CAFC approved the defendant's conduct because the patentee had not yet charged infringement. *Id.* at 465-66.

Bentley was more prudent than the defendant in *American Original*. When Bentley became aware of Shiley's patent, it sought the advice of experienced outside patent counsel. Geriak counseled orally and in writing that the BOS

did not infringe (JA 1420, 868-69; DX 297, JA 2417). And Geriak's opinions were rendered *before* Shiley charged infringement.

**D. *Radio Steel & Mfg. Co. v. MTD Prods., Inc.*, 788 F.2d 1554 (Fed. Cir. 1986)**

The CAFC affirmed a finding of no willful infringement when defendant relied upon an oral opinion of outside counsel obtained *after* plaintiff had notified the defendant of possible infringement. Counsel's opinion was *not* based on a review of the prior art or the prosecution history of the patent. Nevertheless, the CAFC held that defendant's reliance upon counsel's suggested design modification was sufficient to exonerate defendant from willful infringement. *Id.* at 1558-59.

In contrast, Bentley obtained a comparable oral opinion and a full-blown written opinion from Geriak *before* Shiley ever notified Bentley of infringement (DX 297, JA 2417; JA 868-69).

**E. *King Instrument Corp. v. Otari Corp.*, 767 F.2d 853 (Fed. Cir. 1985), cert. denied, 106 S. Ct. 1197 (1986)**

Defendant obtained one of plaintiff's products and filed a patent application on its own design. Plaintiff's patent was cited against defendant's application, but defendant was granted a patent. Defendant even sought a license under plaintiff's patent, but plaintiff refused. Subsequently, defendant manufactured the infringing product. *Id.* at 866-67.

Relying on the bare inference that defendant's management "might reasonably have believed that its actions were protected as within its own patentably distinct claims, while falling outside the '153 patent claims," the

CAFC affirmed the district court's conclusion that the infringement was not willful. *Id.* at 867.

Unlike the defendant in *King*, Bentley was more careful because it did obtain and rely upon an opinion of competent outside patent counsel when it became aware of the Shiley patent.

F. *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613 (Fed. Cir.), *cert. dismissed*, 106 S. Ct. 340 (1985)

The CAFC affirmed a finding of no willful infringement on facts considerably more egregious than the facts of the present case. In *Shatterproof Glass*, defendant knew of the patent prior to marketing its product and did not seek a pre-market opinion of counsel. Also the high profit margin of defendant's product raised a question as to its good faith in proceeding to market the product. However, the CAFC affirmed the district court's denial of increased damages, because this was not clear and convincing evidence of willfulness. *Id.* at 628.

In the present case, Bentley obtained two opinions of counsel upon learning of Shiley's patent, but the CAFC affirmed a willfulness finding.

G. *Laitram Corp. v. Cambridge Wire Cloth Co.*, 785 F.2d 292 (Fed. Cir. 1986), *aff'g* 226 U.S.P.Q. 289 (D. Md. 1985), *cert. denied*, 107 S. Ct. 85 (1986)

The CAFC affirmed a finding of no willful infringement even though the defendant, with knowledge of plaintiff's issued patents and without obtaining an opinion of counsel, proceeded to market a product designed in "good faith" by an engineering consultant. *Id.* at 294 (see 226 U.S.P.Q. at 291, 303-04).

Unlike the defendant in *Laitram*, Bentley designed and began selling its product *before* Shiley's patent issued, sought and obtained a legal opinion from its experienced outside patent counsel upon independently learning of Shiley's patent, and obtained a second written opinion of non-infringement *before* Shiley charged infringement.

It is apparent that the "totality of the circumstances" standard has been used to exonerate defendants who were considerably less prudent than Bentley. The "standard" permits such inequities because it lacks any substantive content and effectively permits punitive damages and attorney fees to be assessed at the whim of the fact finder.

### III.

#### **THE CAFC'S INCONSISTENT APPLICATION OF THE "TOTALITY OF THE CIRCUMSTANCES" STANDARD PROVIDES NO GUIDANCE TO THOSE WHO NEED TO KNOW—THE BUSINESS AND LEGAL COMMUNITIES**

As the CAFC has applied its "totality of the circumstances" standard, it is merely a rubric to affirm a district court's willful infringement finding.<sup>4</sup> By failing to explicitly analyze and balance the relevant factors in light of policies to be effectuated, the CAFC has effectively held that any set of facts can be used to support any willfulness or non-willfulness conclusion, depending on how the district court decided the issue.

The only fact the CAFC discussed in this case is that Bentley sold the BOS before the patents in suit issued (A 9). Although this fact alone may not negate a willful

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<sup>4</sup> See *supra* note 2, at p. 7.

infringement finding,<sup>5</sup> the CAFC did *not* state what facts, if any, affirmatively support the finding of willful infringement. Such an approach leaves the business community, lawyers, and judges without any guidance as to the relevant facts and their relative importance.

As a result, lawyers cannot advise their clients on the crucial issue of willful infringement. To tell a client the court looks at the "totality of the circumstances" is meaningless, unless the lawyer can also explain which "circumstances" are important and how they will be weighed on the scale.

This problem is exacerbated because, as previously demonstrated, on the same set of salient facts different panels of the CAFC have reached different results. Moreover, one CAFC panel will say one thing about a salient fact and another will say just exactly the opposite. Thus, in *State Indus., Inc. v. A.O. Smith Corp.*, 751 F.2d 1226, 1236 (Fed. Cir. 1985) and *American Original Corp. v. Jenkins Food Corp.*, 774 F.2d 459, 465 (Fed. Cir. 1985), the panels said: "To willfully infringe a patent, the patent must exist . . . ." In *Pacific Furniture Mfg. Co. v. Preview Furniture Corp.*, 800 F.2d 1111, 1114-15 n.9 (Fed. Cir. 1986), on the other hand, the panel said: "The fact that Preview may have started its infringement before the patents issued (or before appellants were aware of the patents) does not bar an award of increased damages or attorney fees."

Thus at the present time a lawyer cannot competently advise, for instance, whether an opinion of counsel should

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<sup>5</sup> Although the CAFC said in both *State Industries*, 751 F.2d at 1236, and *American Original*, 774 F.2d at 465: "To willfully infringe a patent, the patent must exist . . . ."

be sought if a patent has issued but the patentee has *not* charged infringement, whether an opinion of counsel is required if the client has obtained a device marked "Patent Pending," whether an opinion of counsel should be obtained before a product is marketed, whether an opinion by in-house patent counsel will suffice, and whether an opinion should be in writing.

Twenty years ago, in *Graham v. John Deere Co.*, 383 U.S. 1 (1966), this Court clarified the patent laws by creating a uniform legal standard for "obviousness" under 35 U.S.C. § 103. Once again, the intervention of this Court is needed, this time to clarify the law of punitive damages in patent cases.

#### IV.

#### **IF THIS COURT DOES NOT INTERVENE TO CLARIFY THE CAFC "STANDARD", THE INTENT OF CONGRESS IN CREATING THE CAFC WILL BE THWARTED AND THIS COURT'S POLICY FAVORING GOOD FAITH CHALLENGES TO PATENTS WILL BE UNDERMINED**

As demonstrated in Table 3 (A 50) and discussed in Section II, *supra*, the CAFC's decisions holding no willful infringement are in hopeless conflict. Yet the CAFC was created for the purpose of unifying and clarifying United States patent law. *Panduit Corp. v. All States Plastic Mfg. Co.*, 744 F.2d 1564, 1573-74 (Fed. Cir. 1984) (quoting S. Rep. 97-275, 97th Cong., 1st Sess. 5). *See also Titanium Metals Corp. v. Banner*, 778 F.2d 775, 779 (Fed. Cir. 1985).

The uncertainty and unpredictability of the "totality of the circumstances" standard has also had a chilling effect on good faith challenges to patents. The vagueness of this standard creates apprehension that a patent challenger will be punished with trebled damages and attorney fees

even when it acts with the utmost good faith, as Bentley did here.

In the seminal case of *Lear, Inc. v. Adkins*, 395 U.S. 653, 670, 674 (1963), this Court recognized the important federal interest in fostering competition by promoting good faith challenges to patent validity. In *Lear*, this Court sought to promote the free use of ideas in the public domain by abolishing the doctrine of licensee estoppel and thereby encouraging those with an economic incentive to challenge undeserved patents. Unless this Court clarifies the law of willful infringement, patents that would otherwise be challenged by competitors will go unchallenged because of a fear of treble damages and attorney fees.

The effect is not isolated, because consumers bear the ultimate burden of unchallenged, invalid patents. If the patent owner licenses the patent, unnecessary patent royalties are passed on to consumers in the form of increased prices. If the patent owner refuses to license the patent, he is free to charge a monopoly price for his product, also increasing the price to consumers.

V.

**THIS COURT SHOULD GRANT BENTLEY'S PETITION OR, IN THE ALTERNATIVE, SUMMARILY VACATE AND REMAND TO THE CAFC FOR CLARIFICATION OF THIS NON-STANDARD BASED UPON THE UNDERLYING POLICIES OF PUNITIVE DAMAGES AND PATENT LAW**

In construing other statutory damage provisions, this Court has repeatedly recognized that an award of punitive damages serves two purposes: punishing the defendant for willful or malicious conduct and deterring others from similar behavior. See *Memphis Community School Dist. v. Stachura*, 54 U.S.L.W. 4771, 4773 n.9 (1986) (§ 1983

case) (citing *Gertz v. Robert Welch, Inc.*, 418 U.S. 323, 350 (1974)); *American Soc'y of Mechanical Eng'rs v. Hydro-level Corp.*, 456 U.S. 556, 575 (1982) (construing treble damage provisions of the antitrust laws); *Newport v. Fact Concerts, Inc.*, 453 U.S. 247, 266 (1981) (§ 1983 case). See also *International Bhd. of Elec. Workers v. Foust*, 442 U.S. 42, 48 (1979) (fair representation case); *Washington Gas Light Co. v. Lansden*, 172 U.S. 534, 555 (1899) (tort liability).

Unlike the antitrust laws, which were enacted to foster competition and inhibit monopoly, the patent laws inhibit competition and foster limited monopoly. A *fortiori* punitive damage awards should be given heightened scrutiny in the patent context and should be based on a principled and evenhanded legal standard. See *Seymour v. McCormick*, 57 U.S. (16 How.) 479, 488 (1853) (discussing purposes of treble damages under Patent Act of 1836).

By creating a standard that (1) punishes defendants who have *not* acted willfully or maliciously, and (2) deters good faith challenges to patents, a policy encouraged by this Court in *Lear*, the CAFC has lost sight of these goals. On the undisputed facts of record, which show that Bentley acted prudently and carefully by seeking out the advice of its counsel when it independently learned of Shiley's patent, this Court should grant Bentley's Petition.

In the alternative, this Court should summarily vacate and remand to the CAFC for clarification of the "totality of the circumstances" standard in light of the policies underlying punitive damages in patent cases. Sup. Ct. R. 23.1. Factors that the CAFC has sometimes discussed and should analyze on remand are:<sup>6</sup>

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<sup>6</sup> These are the factors used to analyze the CAFC's decisions holding no willfulness set forth in Table 3 (A 50).

- (1) Did the patent issue before the defendant started the alleged infringing activity?
- (2) Was the defendant aware of the patent before starting the alleged infringing activity?
- (3) Was the defendant aware of the patent before the patentee's notice of infringement?
- (4) Did the defendant obtain an opinion of counsel after becoming aware of the patent?
- (5) Was the opinion oral or written?
- (6) Was the opinion provided by outside or in-house counsel?
- (7) Was the opinion based upon a review of the file history of the patent?
- (8) Did the defendant copy the patented invention?

If such an analysis is used in this case, the reasoned result is that Bentley acted prudently and in good faith and therefore could not be a willful infringer. Regardless of the outcome for Bentley, however, the CAFC standard can only have meaning when these factors are carefully analyzed and balanced in light of the purposes underlying punitive damages and patents.

—19—

## CONCLUSION

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For the foregoing reasons, this Petition for Certiorari should be granted. In the alternative, Bentley requests the Court to grant summary reversal and remand to the CAFC pursuant to Supreme Court Rule 23.1.

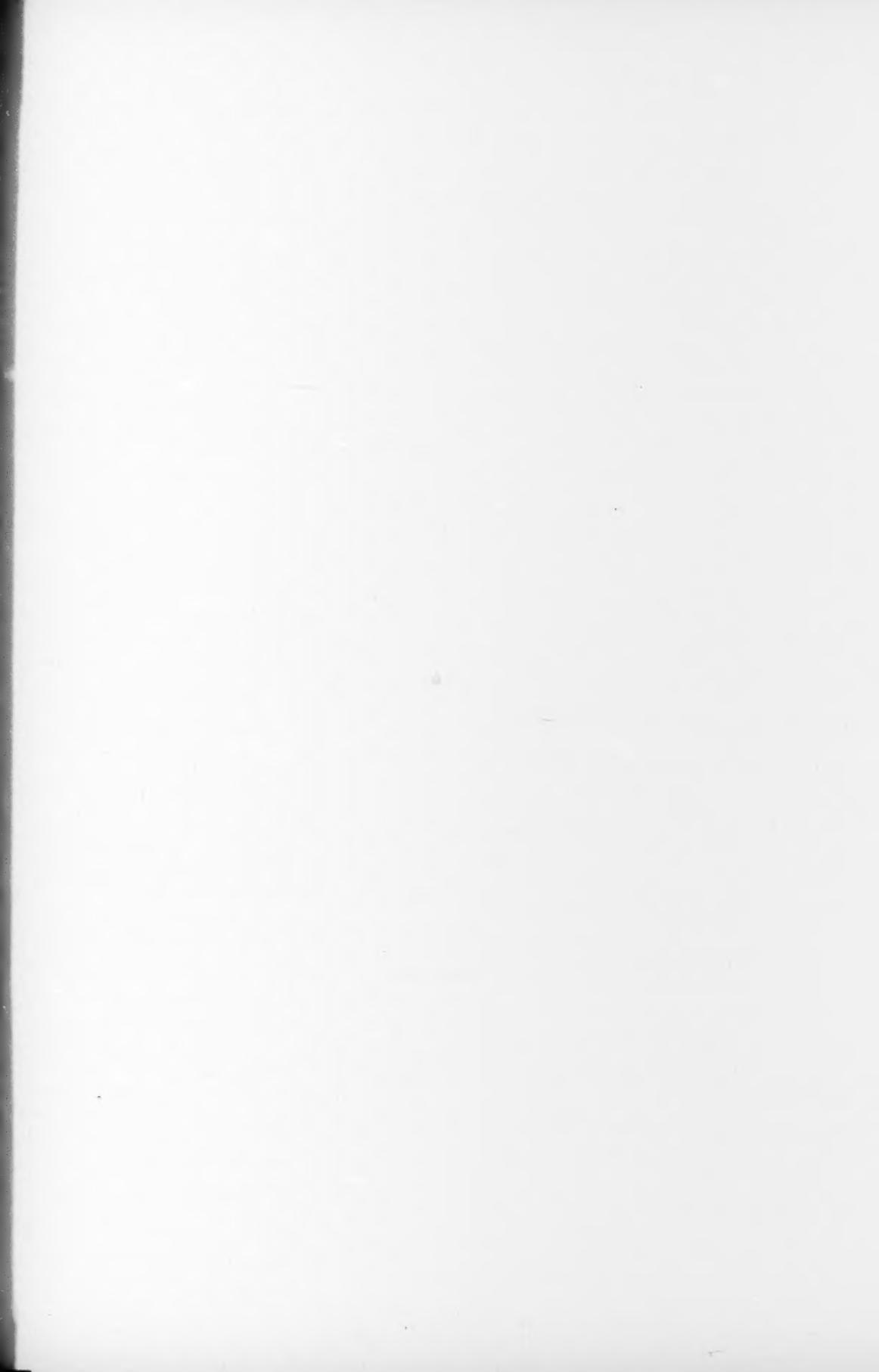
Respectfully submitted,

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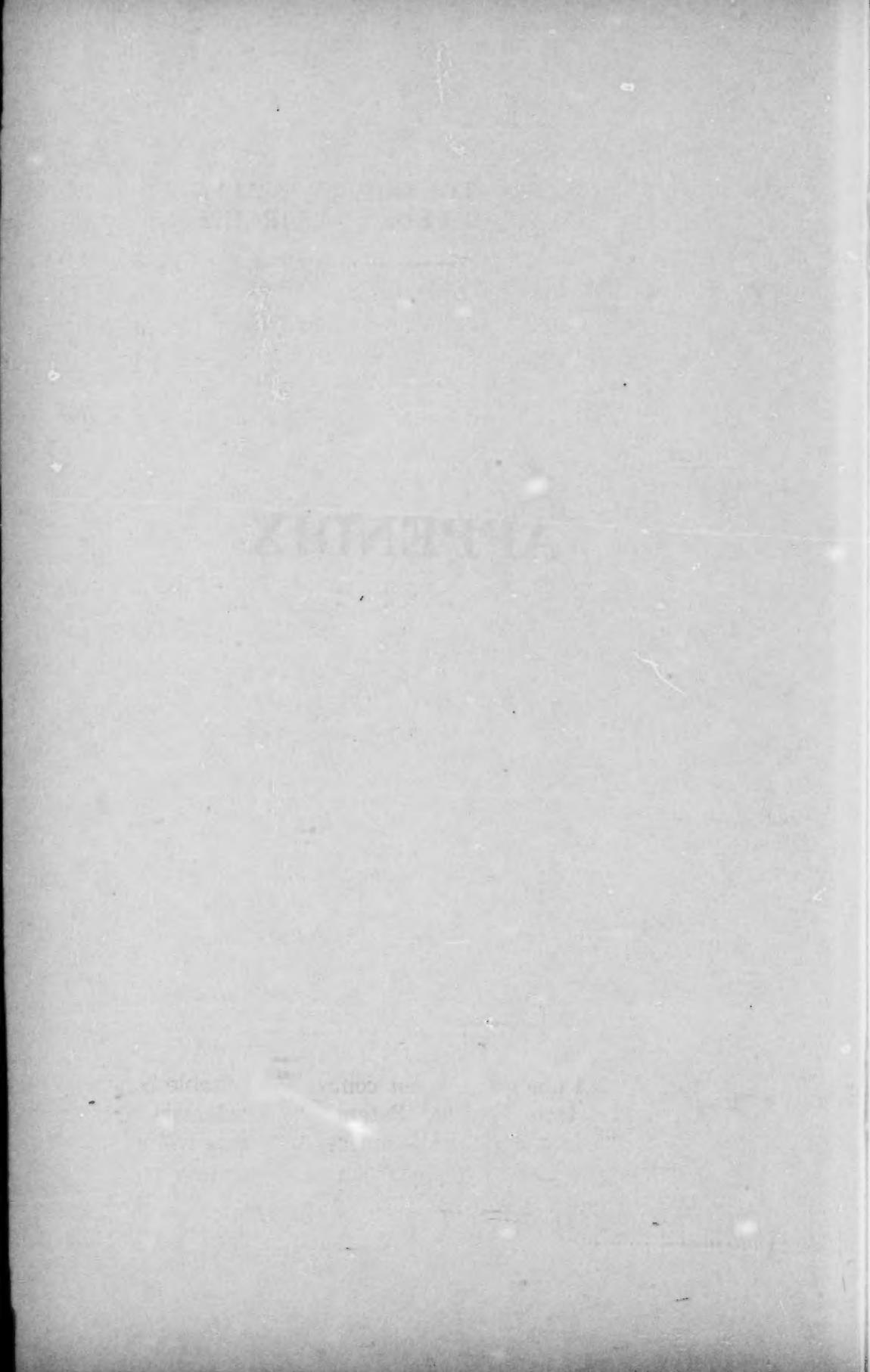
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GARY M. ROPSKI  
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WILLIAN BRINKS OLDS HOFER  
GILSON & LIONE LTD.



# **APPENDIX**



UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT

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Appeal No. 85-2226

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SHILEY, INC.,

*Plaintiff-Appellee,*

*v.*

BENTLEY LABORATORIES, INC.,

*Defendant-Appellant.*

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DECIDED: June 16, 1986

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Before BALDWIN, SMITH, and NEWMAN, *Circuit Judges.*  
BALDWIN, *Circuit Judge.*

Shiley, Inc. (Shiley) sued Bentley Laboratories, Inc. (Bentley) for infringement of U.S. Patent Nos. 4,065,264 ('264) and 4,138,288 ('288). Bentley counterclaimed for a declaration of invalidity, unenforceability, and non-infringement. The action was tried to a jury, and resulted in a verdict for plaintiff on all issues. The special verdict included jury findings that none of the claims in suit was invalid, that plaintiff was entitled to recover its lost profits in the amount of \$17,528,000, that a reasonable royalty is twelve percent (12%) of the selling price of the accused device, that plaintiff did not commit inequitable conduct before the United States Patent and Trademark Office (PTO), and that defendant's infringement was willful. The court denied defendant's motion for judgment notwithstanding.

standing the verdict (JNOV), treated the jury finding of willful infringement as merely advisory, made an independent finding of willful infringement, and awarded double damages, attorney fees, prejudgment interest, and a permanent injunction. A final, amended judgment in the amount of \$44,248,137 was entered against Bentley on March 13, 1985. *Shiley, Inc. v. Bentley Laboratories, Inc.*, 611 F.Supp. 964, 225 USPQ 1013 (C.D. Cal. 1985).

Bentley appeals from the trial court's entry of judgment on the jury verdict and charges the district court with abuse of discretion in calculating the damage award based on the issuance date of the '264 patent, in doubling the damage award based on the finding of willful infringement, and in denying Bentley's motion for new trial based on prejudicial error. We affirm.

### *Background*

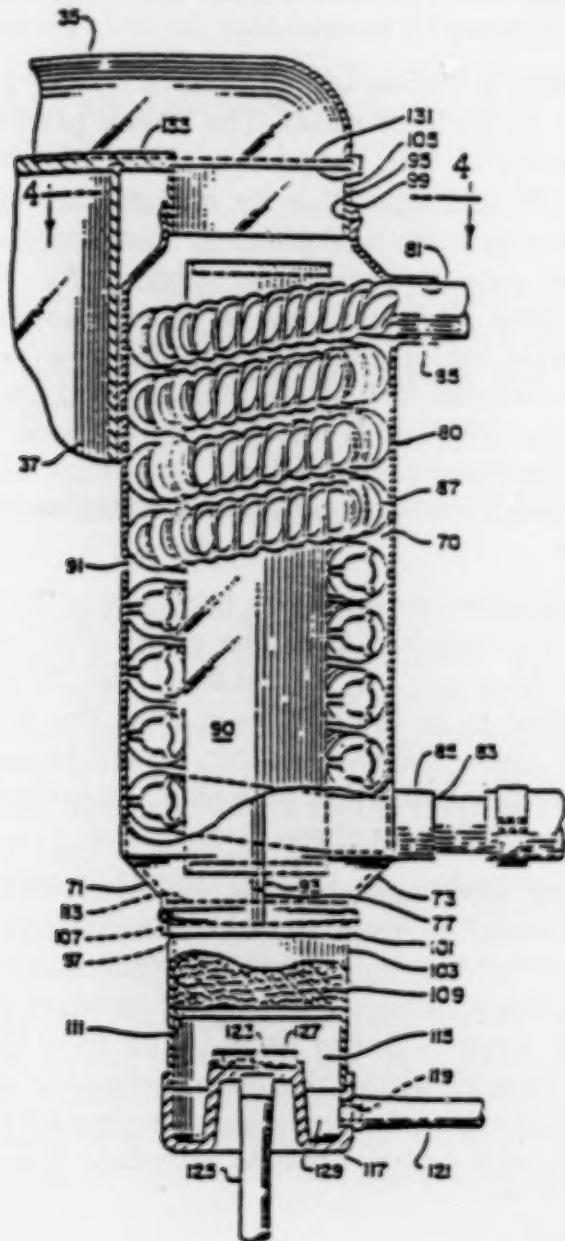
The patents in suit relate to a high efficiency heat exchanger designed for use with a blood oxygenator (the "lung" portion of the heart-lung machine employed during open heart surgery). The heat exchanger is used to lower the temperature of the blood prior to and during surgery, and then to rewarm the blood to normal temperature. The cooled blood induces a condition called hypothermia, characterized by slowed functioning of the vital organs and overall reduced oxygen consumption by the patient. Hypothermia gives the surgeon time to perform a surgical procedure and enhances the patient's likelihood of survival.

The heat exchanger of this invention can be formed from tubing which has a hollow, helical (spiral) rib along its length. The tubing is wrapped around a cylinder and then encased in a tight-fitting shell. Heated or cooled water

### A 3

flows through the inside of the tubing, while the blood flows along the outside.

FIG. 3.



## A 4

The combination of the rib and the surfaces of the cylinder and shell confines blood flow to a number of small, long paths. Temperature control is very efficient, due in part to the large heat exchange surface contacted by a relatively small volume of blood.

The helically ribbed tubing, known by the trade name Turbotec, is made of metal. The Shiley patent specifications referred to U.S. Patent Nos. RE24,783 and 3,015,355 for methods and apparatus for manufacture of such tubing. Both aluminum and stainless steel are mentioned in the Shiley patents as possible materials for construction of the tubing. Stainless steel is compatible with a blood environment but is expensive and has poor heat conductivity. Aluminum is toxic to human blood but has good heat conductivity and is relatively inexpensive. The Shiley patents disclosed that the toxic properties of aluminum may be overcome by application of a thin coating of polyurethane.

An alternative form of the tubing may have a series of individual ring-like ribs. The claims that refer to this type of tubing are 7, 8, 19 and 24 of the '288 patent, and are referred to as the bellows claims. The district court held that these claims were not in suit because no evidence was presented that defendant was making an oxygenator according to these claims.

The heat exchanger may be mounted within a blood chamber separate from the blood oxygenator, or incorporated within the oxygenator. The preferred embodiment of both Shiley patents, the Shiley product (S-100) and Bentley's accused device (BOS-10) all have the heat exchanger located within the mixing chamber of a bubble blood oxygenator. A bubble blood oxygenator uses a device such as a sparge tube to introduce fine bubbles of

oxygen and other gases into the blood. What actually travels through the heat exchanger is blood foam, not ordinary blood, and a subsequent defoaming step is required. During prosecution of the Shiley patents, the applicant demonstrated to the satisfaction of the examiner that the placement of this particular heat exchanger within the mixing tank of a bubble oxygenator results in enhanced blood-gas transfer.

### *Issues*

The issues before this court are whether the district court erred in denying defendant's motion for JNOV, and denying defendant's motion for new trial, as well as issues relating to damages.

#### *Judgment Non Obstante Veredicto (JNOV)*

##### *Inequitable Conduct*

Bentley argues that it is entitled to JNOV because the jury finding that Shiley made no misrepresentation or omission in dealing with the PTO is clearly erroneous, not supported by substantial evidence, and contrary to the overwhelming weight of the evidence. This argument is based on the ground of nondisclosure to the PTO of: (1) advertisements for the Turbotec tubing used in the Shiley patent, and (2) a drawing of a bubble blood oxygenator with a heat exchanger in the form of a helical coil as employed by Dr. Frank Gollan, a pioneer in the field of cardiac surgery.

Bentley argues that because the Turbotec ads contained a drawing of tubing that formed a helical coil, the jury finding of no omission was erroneous as a matter of law. The jury was presented evidence from the file wrapper that the patents for the Turbotec tubing were considered

by the examiner and that the PTO viewed the Turbotec patents as disclosing a heat exchanger design identical to that claimed, but that the applicant had made a sound case for patentability based on unexpectedly efficient gas interchange resulting from the specific design of the device. We conclude that a reasonable jury could have found that no omission or misrepresentation occurred with respect to the Turbotec ads, and that the district court did not err in denying JNOV on this ground.

Bentley's argument with respect to the drawing is similarly without merit. The drawing was published by Dr. Frank Gollan in his book, *Physiology of Cardiac Surgery* (1959). It is a schematic drawing applicable to several oxygenators designed and tested by Dr. Gollan which employed a heat exchanger in the form of a helical coil to simultaneously oxygenate and regulate the temperature of the blood. Bentley claims this information was never presented to the PTO. Dr. Gollan is well recognized in the field of blood hypothermia. His work has been described in other publications presented to the jury by Bentley: Dr. Pierre M. Galletti's book, *Heart-Lung Bypass* (1962); and DeWall, et al., "Theme and Variations on Blood Oxygenators" (*Surgery*, December 1961).

Research on the use of hypothermia for surgical procedures has been conducted since the 1950's. A number of different types of heat exchangers have been reported, and applicant, in both patent applications, cited "Heart-Lung Bypass" by Pierre M. Galletti, M.D. et al., pp. 165-170 (1962), for a comparison of different types of heat exchangers. The following text appears on page 167:

- Use has been made of this [heat transfer by conduction] with different geometrical configurations: coils, cylinders or plates. Each of these three types feature advantages and drawbacks.

1. A simple silver *coil immersed in the pump oxygenator* has served successfully for cooling and warming of the entire circulation of dogs by *Gollan, et al.* (1952) (*see fig. 21. A*). *Peirce and Polley* (1953, 1956), *Dietman* (1955) and *Oselladore, et al.* 1957 found the same type of heat exchanger reliable. For autogenous lung oxygenation, *Shields and Lewis* (1959) inserted a *stainless steel coil* in both right heart bypass and left heart bypass circuits. A *double lumen coil*, with the blood circulating inside and the water outside, was proposed by *Ross* (1954 a). *Zuhdi, et al.* (1960 b. 1961) astutely thought of a long *stainless steel spiral* wound in the helix settling chamber of the *DeWall-Lilleher bubble oxygenator* (fig. 59 C). \* \* \*. [Emphasis added.]

The citation to figure "21. A" refers to page 70 of that same text, and to a drawing of the Gollan oxygenator. Applicant did not cite directly to page 70 of "Heart-Lung Bypass," an omission that is the substantive basis for Bentley's contention that Shiley engaged in inequitable conduct before the PTO.

The jury was presented considerable evidence on the issue of whether an omission had been made. It heard evidence that the Gollan oxygenators were used in pioneer work on open heart surgery in animals. It heard further evidence that the PTO had reviewed more current prior art, including Patent No. 3,437,450 to Greenwood, which Bentley admitted on appeal does disclose simultaneous temperature control and oxygenation of the blood. The jury watched a film of a Gollan oxygenator in operation, showing how it operates differently from the invention claimed in the patent in suit, and that it has areas of stagnation, a potentially deadly flaw.

The jury was presented voluminous evidence during trial before reaching its conclusion that no omission had been

made. Substantial evidence supports the jury findings. Bentley's argument, which selectively presents what favorable evidence may exist, does not warrant reversal of that fact finding.

#### *Willfulness*

Bentley argues that the district court should have granted Bentley's JNOV motion on willful infringement because the undisputed facts establish that Bentley did not willfully infringe as a matter of law. In this case, the jury found willful infringement and the judge independently found willful infringement. *See Shiley, Inc. v. Bentley Laboratories, Inc.*, 601 F.Supp. 964, 968, 225 USPQ 1013, 1016 (C.D. Cal. 1985). The findings are in agreement and are amply supported by the record. The trial court exercised its discretion to award double damages based on its finding of willful infringement. We find no abuse of discretion in this award, *see Kori Corp. v. Wilco Marsh Buggies and Draglines, Inc.*, 761 F.2d 649, 656-57, 225 USPQ 985, 989-90 (Fed. Cir.), cert. denied, 106 S.Ct. 230 (1985), or in the award of attorney fees on this basis *see Rosemount, Inc. v. Beckman Instruments, Inc.*, 727 F.2d 1540, 1547-48, 221 USPQ 1, 8-9 (Fed. Cir. 1984).

The trial court apparently deemed it necessary to label as "advisory" one of the jury's fact findings on willful infringement, and to make its own finding of fact, to enable it to exercise the court's statutory discretion to award increased damages. 35 U.S.C. § 284.\* That step was

\*. 35 U.S.C. § 284 provides in part:

When the damages are not found by a jury, the court shall assess them. In either event the court may increase the damages up to three times the amount found or assessed.

neither appropriate nor necessary. All fact findings of a jury are non-advisory, unless made in an area expressly removed from jury verdict. The first sentence of § 284 deals with actual damages, which, if not found by the jury, must be found by the court. The second sentence deals with increasing damages, which is assigned to the court, whether the facts of willful infringement justifying an increase are found by a jury, or by a court in a non-jury trial. Thus, if a jury finding of willful infringement is not overturned on a motion for JNOV, the court has discretion to award increased damages on the basis of the jury's finding; if the jury finding is that willful infringement did not occur and that finding is not overturned on a motion for JNOV, no basis for assessing increased damages for willful infringement exists; if the jury finding is that willful infringement did not occur, and the court does overturn that finding on a motion for JNOV because no reasonable jury could on all the facts find an absence of willful infringement, the court may increase damages within its discretion under § 284.

Bentley argues that since it began to market its infringing device a month before any of Shiley's patents issued, its infringement cannot be willful as a matter of law under *State Industries, Inc. v. A.O. Smith Corp.*, 751 F.2d 1226, 224 USPQ 418 (Fed. Cir. 1985). We disagree. *State* does not, as Bentley contends, hold that a finding of willful infringement can not stand whenever manufacture of an accused device begins prior to the issuance of a patent. On the contrary, *State* is in harmony with our prior and subsequent case law, which looks to the "totality of the circumstances presented in the case," *Central Soya Co. v. George A. Hormel & Co.*, 723 F.2d 1573, 220 USPQ 490 (Fed. Cir. 1983).

*Obviousness/Manner of Making Invention*

Bentley argues that the district court should have granted Bentley's JNOV motion because the inventions of the Shiley patents would have been obvious as a matter of law. It argues that John Lewin, the inventor, was a mechanical engineer who had no work experience with blood or blood oxygenators, and that he necessarily had less than ordinary skill in the art; that he saw a Turbotec tubing ad and immediately conceived the successful design to obtain a known result. Extensive evidence on these and related factual issues pertinent to obviousness was presented to the jury, who were correctly instructed that patentability of an invention does not depend on how the invention was made. 35 U.S.C. § 103. We see no reversible error in the district court's refusal to grant JNOV on the basis of Bentley's argument.

*Motion for New Trial*

*Denial of Declaratory Judgment Counterclaim*

Bentley argues on appeal that its motion for new trial should have been granted because the district court refused to try its declaratory judgment counterclaim with respect to claims 6, 7, 19, and 24 (bellows claims) of the '288 patent. Bentley asserts (1) it presented evidence to the trial court that a bellows oxygenator was being made by Bentley at that time; (2) it was prepared to prove that Shiley had engaged in inequitable conduct in its dealings with the PTO by concealing an on-sale bar with respect to these claims; and (3) the district court refused to admit evidence with respect to the allegedly inequitable conduct. These assertions are not supported by the record.

One month prior to trial, Bentley's counsel sought declaratory judgment of non-infringement with respect to the bellows claims. Shiley objected because Bentley had successfully prevented discovery with respect to its experimental bellows oxygenators by raising the attorney/client privilege. The trial court attempted to determine what effect denial of the counterclaim would have on Bentley's rights. In response to the trial court's statement that it did not know how the doctrine of res judicata applied in patent cases (i.e., whether a defendant could later proceed against unadjudicated claims of a patent) and an invitation to counsel to comment, counsel for Bentley stated:

MR. LYON: There is one problem that worries me, your Honor.

That is, if after this trial, we decided to make a bellows-type device, will we be precluded from asserting invalidity of those claims in view of the proceedings today?

If your ruling is such that that might be preserved to us, then we have no objection to your Honor so ruling.

Contrary to Bentley's appellate brief, Bentley presented no evidence to the trial court that the bellows oxygenator was being made. Instead, Bentley stated only that they might be made in the future, and did not object to the court's ruling.

Bentley's second assertion that it was prepared to prove that Shiley engaged in inequitable conduct in its dealings with the PTO by concealing an on-sale bar with respect to the bellows claims, is not supported by evidence. The evidence consists of two documents written by Bentley's counsel, and a proposed issue of fact for the jury. One document is defendant's exhibit 298, a copy of a memo-

randum to file containing a statement that "discovery has established that the S-100 was on sale, in public use and illustrated in printed publications more than a year prior to that date," without elaboration. The other document is defendant's exhibit 297, a letter which contains no mention of the on-sale bar. The proposed jury question, of course, is not evidence.

Even if these documents could have raised the issue of an on-sale bar, Bentley is unable to argue prejudice from the district court's refusal to admit them, because these exhibits were offered and accepted into evidence.

Bentley also argues that the district court's denial of the declaratory judgment counterclaim allowed Shiley to narrow the scope of the adjudicated claims during trial, thereby precluding Bentley from asserting certain prior art against the claims in issue. Bentley's argument with respect to its allegedly invalidating prior art falls because the prior art was offered and accepted into evidence at trial.

#### *Jury Interrogatories/Inequitable Conduct*

Bentley argues that Shiley engaged in inequitable conduct by concealing material prior art from the PTO during prosecution of its patents, and that it is entitled to a new trial because the jury made no findings of materiality and intent. The issue was submitted to the jury as follows:

9. Please answer each of the following questions on the issue of "inequitable conduct."
  - (a) Do you find that the patent applicant or his attorney or agent made any misrepresentation or omission in their dealings with the Patent Office?

A 13

Answer separately as to each claim:

The '264 Patent—

Claim 3	<u>NO</u>	(Yes or No)
Claim 4	<u>NO</u>	(Yes or No)
Claim 6	<u>NO</u>	(Yes or No)
Claim 8	<u>NO</u>	(Yes or No)
Claim 11	<u>NO</u>	(Yes or No)
Claim 12	<u>NO</u>	(Yes or No)
Claim 17	<u>NO</u>	(Yes or No)
Claim 18	<u>NO</u>	(Yes or No)

The '288 Patent—

Claim 1	<u>NO</u>	(Yes or No)
Claim 2	<u>NO</u>	(Yes or No)
Claim 3	<u>NO</u>	(Yes or No)

Answer the following questions only if your answer to Question 9(a) was "yes" with respect to at least one claim.

(b) As to any misrepresentation or omission that you find was made, was it *material*, in that:

(i) there is a substantial likelihood that a reasonable patent examiner would consider the information important?

\_\_\_\_\_ (Yes or No)

(ii) the patent would not have issued, *but for* the misrepresentation or omission?

\_\_\_\_\_ (Yes or No)

(iii) the misrepresentation or omission *may have* reasonably affected the examiner's decision to issue the patent?

\_\_\_\_\_ (Yes or No)

(c) What do you find to be the state of mind with which the misrepresentation or omission was made?

(i) That it was done intentionally to deceive or mislead the Patent Office?

\_\_\_\_ (Yes or No)

(ii) That it was done with recklessness or gross negligence?

\_\_\_\_ (Yes or No)

(iii) That it was done with a less culpable state of mind than either of the two states of mind specified above or with a state of mind of no culpability at all?

\_\_\_\_ (Yes or No)

Objection to the form of all the questions presented to the jury was made by both parties.

The special verdict form presented to the jury was accompanied by clear and complete instructions. This approach is not error. See *Weinar v. Rollform, Inc.*, 744 F.2d 797, 223 USPQ 369 (Fed. Cir. 1984), cert. denied, 105 S.Ct. 1844 (1985). Had the jury found that a misrepresentation or omission had been made, then questions of materiality and intent would arise. Since the jury answered no to interrogatory 9(a), supra, and this finding was supported by substantial evidence, no further inquiry was necessary.

#### *Inflammatory Statement*

Bentley argues that its motion for new trial should have been granted because the district court committed prejudicial error by allowing Shiley's counsel to cross examine Mr. Bentley and elicit an admission that his company had been adjudged a willful infringer in prior litigation with a third party. As Shiley points out, Bentley neglects to mention that it laid the groundwork for Shiley's questions during its own direct examination. Mr. Bentley testified

on direct examination that Bentley had not copied the Shiley S-100, that he had not seen the S-100 prior to the production of the BOS-10, that he was President, Chief Executive Officer, and Chairman of the Board of Bentley, and that he was intimately involved in the development of Bentley devices. He also testified as to his integrity and personal involvement in avoiding "conflict" with other patents.

Bentley had made a pre-trial admission that it had possession of four models of the S-100 prior to the development of the BOS-10. Mr. Bentley's credibility was squarely placed in issue by his direct testimony. He stated on cross-examination that he personally maintained a policy of avoiding infringement of other firms' patents. The district court, over timely objection, permitted Shiley to impeach the witness using a detailed recitation of Mr. Bentley's activities as recorded in the opinion in *Deknatel, Inc. v. Bentley Sales, Inc.*, 173 USPQ 129 (C.D. Calif. 1971). We find no error in the judge's ruling under these circumstances. Fed. R. Evid. 608 and 611.

#### *Jury Instruction/Damages*

Bentley argues it is entitled to a new trial because the district court's instruction on damages, over objection, asked the jury to assess damages from December 27, 1977, the issue date of the '264 product patent. Bentley claims that Shiley did not prove marking of the S-100 with notice of the '264 patent, and pursuant to 35 U.S.C. § 287, Shiley may only rely upon February 6, 1979, the issue date of the '288 method patent, as the commencement date for any damages. An examination of the record reveals that the objection Bentley made was to "all parts of the verdict form" [emphasis ours]. This objection does

not conform to the requirements of Fed. R. Civ. P. 51 and is insufficient to preserve this type of error on appeal. Further, it appears from the record that marking of the S-100 was not in issue at trial.

We have considered Bentley's arguments with regard to prejudgment interest and find them without merit.

We have carefully considered Bentley's other arguments and citations to precedent and the record. We find them devoid of merit. The judgment appealed from is *affirmed*.

AFFIRMED

DISTRICT COURT, C. D. CALIFORNIA

Shiley, Inc. v.  
Bentley Laboratories, Inc.

No. CV 81-3262

Decided Feb. 4, 1985

Tashima, District Judge.

This is a patent infringement action in which defendant has counterclaimed for a declaration of invalidity. The patents in suit pertain to a bubble blood oxygenator (the "lung" portion of the heart-lung machine employed during open-heart surgery). The action was tried to a jury which, after a lengthy trial, rendered its verdict for plaintiff on all issues. The special verdict included, *inter alia*, the jury's findings that none of the claims in suit was invalid, that plaintiff was entitled to recover for its loss profits in the amount of \$17,528,000, that a reasonable royalty is twelve percent (12%) of the selling price of the accused device, that plaintiff was not guilty of inequitable conduct before the United States Patent and Trademark Office and, most importantly to our present inquiry, that defendant's infringement of plaintiff's patents was willful.

The Court heretofore has denied defendant's motion for new trial and motion for judgment notwithstanding the verdict on all grounds, except willful infringement, on which decision was reserved. Before me now is decision on that JNOV issue and plaintiff's motions for: (1) increased damages; and (2) an injunction.<sup>1</sup> For the reasons

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<sup>1</sup> There are also pending three additional motions by plaintiff for: (1) attorneys' fees; (2) prejudgment interest; and (3) a post-verdict accounting. These motions are disposed of concurrently herewith by an unpublished Supplemental Memorandum.

hereinafter set forth, I grant both of plaintiff's motions and deny defendant's JNOV motion.

### 1. Increased Damages — Willfulness

Plaintiff, after verdict, has moved for increased damages in the maximum amount, under 35 U.S.C. §284, which provides in part as follows:

When the damages are not found by a jury, the court shall assess them. In either event the court may increase the damages up to three times the amount found or assessed.

As stated, the jury, by its special verdict, found that defendant's infringement was willful. The issue now before the Court is whether that finding is binding or only advisory, i.e., whether, when a jury is demanded on all issues triable to a jury, the issue is one for the jury or for the Court.

The issue has not been definitively addressed by the case law. The non-Federal Circuit cases which have confronted the issue are almost evenly split. *Compare Yoder Bros., Inc. v. California-Florida Plant Corp.*, 537 F.2d 1347, 1383 (5th Cir. 1976), *cert. denied*, 429 U.S. 1094 (1977); *White v. Mar-Bel, Inc.*, 509 F.2d 287, 292 (5th Cir. 1975); *Medtronic, Inc. v. Catalyst Research Corp.*, 547 F.Supp. 401, 405 (D. Minn. 1982) (each holding the jury's finding to be advisory) with *Creative Cookware, Inc. v. Northland Aluminum*, 678 F.2d 746, 749 (8th Cir. 1982); *Norfin, Inc. v. International Business Mach.*, 625 F.2d 357, 366 (10th Cir. 1980) (both holding that the jury's verdict on willfulness is to be disturbed on appeal only where clearly erroneous). Moreover, none of these cases has attempted any systematic analysis of the problem—their pro-

nouncements are conclusory. There is no controlling case law from the Federal Circuit.<sup>2</sup>

Section 284 appears clearly to indicate that whether infringement and damages are tried to the jury or the court, the authority to increase damages is reserved to the court—"In either event, the court may increase the damages \* \* \* \* " See *Topliff v. Topliff*, 145 U.S. 156, 174 (1892); *Swofford v. B&W, Inc.*, 366 F.2d 406, 412-13 (5th Cir.), cert. denied, 379 U.S. 962 (1964) (court determination of increased damages issue does not violate constitutional right to jury trial).<sup>3</sup> However, the court's discretion to award increased damages is limited by the judicially imposed limitation that such damages may be awarded only in cases of willful infringement. E.g., *Lam, Inc. v. Johns-Manville Corp.*, 668 F.2d 462 (10th Cir.), cert. denied, 456 U.S. 1007 (1982); *Deere & Co. v. International Harvester Co.*, 658 F.2d 1137 (7th Cir.), cert. denied, 454 U.S. 969 (1981); *Leesona Corp. v. United States*, 599 F.2d 958, 969 (Ct.Cl.), cert. denied, 444 U.S. 991 (1979). Therefore, if, as plaintiff contends, the jury's finding of willfulness is binding on the court, much of the discretion vested by Congress in the court will have been shifted

<sup>2</sup> In support of its position that willfulness is an issue to be decided by the jury, plaintiff relies, in part, on pronouncements from the Federal Circuit that the issue is a question of fact. E.g., *Leinoff v. Louis Milona & Sons, Inc.*, 726 F.2d 734, 742 (Fed. Cir. 1984); *Underwater Device, Inc. v. Morrison-Knudsen Co.*, 717 F.2d 1380, 1389 (Fed. Cir. 1983). Such cases shed no light on the issue of whether that question of fact should be decided by the jury or by the court.

<sup>3</sup> Neither party contends that resolution of this issue implicates the Seventh Amendment right to trial by jury. See generally *Dairy Queen, Inc. v. Wood*, 369 U.S. 469 (1962); *Beacon Theatres, Inc. v. Westover*, 359 U.S. 500 (1959).

to the jury. If the jury should find that infringement was not willful, the court would be foreclosed from awarding increased damages. If, as in the case at bench, the jury does find willful infringement, the only issue remaining would appear to be the extent of increased damages. Certainly, a plaintiff who recovered no increased damages, despite a binding finding of willfulness, might have a fair case for abuse of discretion by the trial court.<sup>4</sup>

This analysis is confirmed by an examination of the historical development of the discretionary treble damage provision. Both the original Patent Act of 1790, 1 Stat. 109, and the 1800 amendment, 2 Stat. 37, contained variations of a mandatory treble damage provision. See *Seymour v. McCormick*, 57 U.S. (16 How.) 479, 488 (1853). The Supreme Court characterized the apparent dissatisfaction with this "horizontal rule equally affecting all cases" thusly:

Experience has shown the very great injustice of a horizontal rule equally affecting all cases, without regard to their peculiar merits. The defendant who acted in ignorance or good faith, claiming under a junior patent, was made liable to the same penalty with the wanton and malicious pirate. This rule was manifestly unjust.

*Id.* The Court then made clear the respective roles of jury and judge in the assessment of damages under the Patent Act of 1836, 5 Stat. 117:

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<sup>4</sup> This appears to be the standard of review on appeal of this issue. *Rosemount, Inc. v. Beckman Instruments, Inc.*, 727 F.2d 1540, 1548 (Fed. Cir. 1984).

In order to obviate this injustice, the Patent Act of 1836 confines the jury to the assessment of "actual damages." The power to inflict vindictive or punitive damages is committed to the discretion and judgment of the court within the limit of trebling the actual damages found by the jury.

*Id.*

In short, acceptance of plaintiff's position would render meaningless Congress' clearly expressed intent in enacting the 1836 amendment to the Patent Act and subsequent reenactments of that provision that the issue of increased damages is to be determined by the court and not by the jury. I, therefore, conclude that the jury's verdict on the issue of willful infringement is advisory only.<sup>5</sup> I turn now to the issue of whether defendant's infringement in this case was or was not willful.

Defendant here obtained several of plaintiff's devices prior to bringing its own oxygenators onto the market. These early devices of plaintiff were marked "patent pending." It appears that defendant then engaged in "reverse engineering." It ordered a key component—a helically wound, helically ribbed coil—from plaintiff's supplier<sup>6</sup> and specifically ordered that the part be made to plaintiff's specifications. Defendant also had access to plaintiff's descriptive brochure. Defendant thereafter, within a few months, began marketing the infringing device. From

<sup>5</sup> Because of this conclusion, defendant's motion under F. R. Civ. P. 50(b) for judgment notwithstanding the verdict on the issue of willful infringement is rendered moot and is denied for that reason. See *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 895 n.5 (Fed. Cir. 1984) (JNOV motion applies only to binding jury verdicts).

<sup>6</sup> This component, the Turbotec coil, apparently was itself patented and not available from other suppliers.

these facts, plaintiff claims copying and such an inference is warranted; however, it is unnecessary to rely on this contention.

It is undisputed that defendant obtained a copy of the patent in issue within days of its issuance. It is now the law that:

Where, as here, a potential infringer has actual notice of another's patent rights, he has an affirmative duty to exercise due care to determine whether or not he is infringing.

*Underwater Devices, Inc. v. Morrison-Knudsen Co.*, 717 F.2d 1380, 1389 (Fed. Cir. 1983). I find by clear and convincing evidence that defendant failed to do its affirmative duty to exercise due care; therefore, that its infringement was willful.

First, defendant claims that it promptly obtained an oral opinion in 1978. The totality of the testimony on this "oral opinion" is that when defendant's vice president of legal and medical affairs received "a copy of the front cover" of the patent in issue in early 1978, "the first time I had seen the patent," he called defendant's outside patent counsel<sup>7</sup> "who was writing the patents for me, and I said, 'Let's discuss this,' and we did. And we both agreed that it was a different device. It functioned different, and it was a totally different operating device." Counsel who engaged in this discussion was never called as a witness to explain the basis of his "opinion." In terms of the requirement of *Underwater Devices*, *id.* at 1390, this cannot even be characterized as legal advice or an opinion, much less as a competent opinion.

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<sup>7</sup> The competency of counsel is not an issue.

Two and one-half years later, by letter dated August 21, 1980, defendant received a written opinion from its outside patent counsel. The letter itself notes that by that time the "BOS-10 oxygenator," the infringing device, "has been on sale for almost three years, for a substantial period of time." Thus, defendant here did not perform its affirmative duty which includes, *inter alia*, the duty to seek and obtain competent legal advice from counsel *before* the initiation of any possible infringing activity. In this case, [defendant] obtained its counsel's advice after it commenced its infringing activities." *Id.* at 1390 (citations omitted; emphasis in original). Contrary to the strong suggestion in *Underwater Devices*, there is no evidence that counsel reviewed the file histories. In fact, the letter does not discuss validity at all and is limited to a narrow non-infringement opinion. Even that opinion is undercut by a subsequent letter, dated November 11, 1981, from counsel with the qualification that, "it is also true that a design change in the Bentley BOS-10 oxygenator to a heat exchange tube having individual annular ribs rather than continuous helical ribs will materially reduce, even on a worst case basis, Bentley's exposure to Shiley." The evidence also disclosed that defendant admittedly never conducted any search or study relating to invalidity, scope of enforceability of any claim, patentability of the claimed subject matter or infringement. In summary, I find that the credible evidence presents no good faith, reasonable basis for defendant to believe it had the right to commit the infringing acts. *Stickle v. Heublein, Inc.*, 716 F.2d 1550, 1565 (Fed. Cir. 1983).

Based on this evidence, I conclude that defendant has failed to discharge its affirmative duty to exercise due care to determine whether or not it was infringing the

patents in suit. I therefore find, based on "the totality of the circumstances presented in the case," *Central Soya Co. v. Geo. A. Hormel & Co.*, 723 F.2d 1573, 1577 (Fed. Cir. 1983), that the infringement was wanton and willful.<sup>8</sup> It follows that this is a case in which increased damages may be awarded under §284, in the Court's discretion. *Leinoff v. Louis Milona & Sons, Inc.*, 726 F.2d 734, 742 (Fed. Cir. 1984). The amount of any increased award, as well as whether or not to make one, is also "within the discretion of the district court and will not be overturned absent a clear showing of abuse of discretion." *Rosemount, Inc. v. Beckman Instruments, Inc.*, 727 F.2d 1540, 1547-48 (Fed. Cir. 1984) (upholding award of treble damages).

In exercising my discretion, I have in mind that increased damages under §284 are punitive in nature—a primary purpose of such an award is to punish the wrongdoer and to deter like conduct in the future by way of example—to protect the integrity of our patent system. Having reviewed the entire trial record and based on the totality of the circumstances in this case, I conclude that double damages is an appropriate increased damage award. The jury having returned a verdict of actual damages in the sum of \$17,528,000, I exercise my discretion and award a like amount, \$17,528,000,<sup>9</sup> as increased damages for a

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<sup>8</sup> All of the findings on willful infringement are made under the "by clear and convincing evidence" standard.

<sup>9</sup> In addition to its lost profits award of \$17,528,000, the jury also found that a reasonable royalty was 12 percent of the sales price of the infringing devices. Based on the uncontradicted evidence of such sales the 12 percent royalty would amount to \$17,215,025. Plaintiff has elected the higher lost profits award and the double damage award is based on that award of actual damages. Should the lost profits verdict be disturbed on appeal, but the propriety

(Footnote continued on following page)

total award of \$35,056,000, before application of prejudgment interest, a post-verdict accounting and costs and attorneys' fees.

## 2. Propriety of Injunctive Relief

As indicated earlier, the patents in suit, U.S. Patent No. 4,065,264 and U.S. Patent No. 4,138,288, both pertain to bubble blood oxygenators. Blood oxygenators are used in open-heart by-pass surgery and the sales are substantial. The total market is in the range of \$50-\$100 million in annual sales. The parties here are two of the leading manufacturers and sellers. Plaintiff markets its "S" series of bubble blood oxygenators and defendant markets its "BOS" series of the same type of oxygenator. Other types are available on the market, but the bubble type appears to be highly popular, if not the most popular type. In 1984, defendant sold well in excess of 100,000 units.

On the basis of the jury's special verdict, rejecting all claims of invalidity and finding that the accused device infringes all claims in suit of both patents,<sup>10</sup> plaintiff now

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<sup>9</sup> *continued*

of the reasonable royalty affirmed, I would exercise my discretion to then award increased damages in the sum of \$17,215,025.

<sup>10</sup> Under *Beacon Theatres*, 359 U.S. 500, the court must accept these fact determinations of the jury for purposes of making its determination on the equitable issues. There may be one exception. The special verdict included the jury's finding that none of the patent claims in suit was invalid for obviousness. The question of obviousness is ultimately a question of law. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). In answering that question, however, the ultimate conclusion must be based on an adequate factual underpinning. It is "not error" to submit the question to the jury, if the jury is given "appropriate instructions" of the fac-

(Footnote continued on following page)

moves for the issuance of a permanent injunction enjoining defendant from future infringement of the patents in suit.

Under 35 U.S.C. §283, a court "may grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent, on such terms as the court deems reasonable." Under this section, the decision whether to grant an injunction is thus within the judge's discretion. *Roche Prod. v. Bolar Pharmaceutical Co.*, 733 F.2d 858, 865 (Fed. Cir. 1984); *Smith Int'l, Inc. v. Hughes Tool Co.*, 718 F.2d 1573 (Fed. Cir. 1983). As a court of equity, the court must consider all of the circumstances, including the adequacy of the legal remedy, irreparable injury, whether the public interest would be served, and hardship on the parties and third parties. *Roche*, 733 F.2d at 865-66; *Smith*, 718 F.2d at 1577-79.

In a patent infringement case, where the infringing device will continue to infringe and thus damage plaintiff in the future, monetary damages are generally considered to be inadequate. This inadequacy results from the nature of the patent right itself—the right to exclude others. As the court stated in *Smith Int'l*:

Without the right to obtain an injunction, the right to exclude granted to the patentee would have only a fraction of the value it was intended to have, and would no longer be as great an incentive to engage in the toils of scientific and technological research.

<sup>10</sup> continued

tual inquiry to be made. *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1547 (Fed. Cir. 1983). Here, the jury was fully instructed on the law of obviousness. Jury Instructions Given, 48(a) to 48(j). On this record, therefore, and in light of the case law, I fully accept the jury's special verdict that none of the patent claims in suit is invalid for obviousness.

718 F.2d at 1578. Here, plaintiff has satisfied this requirement. It is still producing its "S" line of oxygenators and its patents are being infringed by defendant's competing BOS oxygenators. Thus, monetary damages would not adequately compensate plaintiff for its loss of the right to exclude defendant. Moreover, where validity and continuing infringement have been established, irreparable injury is presumed. *Id.* at 1581.

That this case meets the foregoing requirements is not contested. The issue here is framed by defendant's contention that issuance of an injunction would disserve the public interest.

How the public interest will be affected must be considered in every injunction action. *Weinberger v. Romero-Barcelo*, 456 U.S. 305, 312 (1982). In *Roche*, the Federal Circuit held, in "the standards of the public interest, not the requirements of private litigation, measure the propriety and need for injunctive relief in these cases \* \* \* \* " 733 F.2d at 865-66 (quoting *Hecht Co. v. Bowles*, 321 U.S. 321, 331 (1944). Other courts have similarly considered the public interest in patent injunction cases. In *City of Milwaukee v. Activated Sludge*, 69 F.2d 577 (7th Cir.), cert. denied, 293 U.S. 576 (1934), injunctive relief to prevent future infringement of a patent was denied when the requested relief would have resulted in the closing of the city's sewage treatment plant. The court held that an injunction was inappropriate because the result would be to endanger the lives of over a half million people by forcing residents to dispose of their sewage in Lake Michigan. *Id.* at 593.

Defendant claims that removal of its oxygenators from the market will have an adverse effect on many candidates for open heart surgery. In support of this conten-

tion, it has filed numerous *ex parte* declarations of hospital administrators and perfusionists who use the BOS oxygenator exclusively.<sup>11</sup> The tenor of these declarations is that all of these declarants consider defendant's model to be "superior" to plaintiff's. Undoubtedly this (belief) is so, else, I presume, they would be among the hundreds of users of plaintiff's model. Suffice it to say, and I so find, that no credible evidence in the trial record supports any finding that either is objectively superior in performance or that either is defective or unsafe in any way or does not properly perform as intended and required in the operating room. The evidence amounts to no more than a mere expression of preference. It should be noted that the record contains ample evidence of institutions and individual perfusionists who use plaintiff's model exclusively and of those who use both models.

Other complaints are raised by BOS users, such as potential short-term supply problems from the sudden cut-off of further BOS supplies without notice and the lag-time in training staff to use another slightly different model. Those complaints may be real, but they can be greatly alleviated by the provision of a transition period before the injunction's prohibition becomes flatly effective.

On balance, I find that the public interest will not be disserved by issuance of an injunction in the circumstances

<sup>11</sup> Paragraph 8.7 of the Pretrial Conference Order listed as an issue of law preserved for trial whether, if infringement were found, defendant should be enjoined. No evidence on the public interest issue was presented at trial and no motion to reopen was made. In this circumstance, I cannot and do not give much credit to these declarations which are untested by cross-examination. Plaintiff contends that if it had been aware that such declarations would be offered by defendant, it would have gathered and filed an equal number of declarations to the contrary, attesting to the superiority of its "S" oxygenator over the BOS oxygenator.

of this case and that the public interest to be served by protection of the nation's patent system outweighs any temporary inconvenience or one-time costs associated with staff training or other costs associated with a changeover to another model. *See Smith Int'l*, 718 F.2d at 1581.

The permanent injunction will contain a six-month transition period to allow an efficient and non-disruptive changeover for those institutions who now employ the BOS oxygenator exclusively. Defendant shall pay to plaintiff a 12 percent royalty for the first two months, a 15 percent royalty for the next two, and an 18 percent royalty for the final two months of the transition period. This royalty shall be on all sales commencing February 1, 1985 and ending July 31, 1985. The royalty shall apply to defendant's average unit selling price for the months of November and December 1984. An additional royalty of 50 percent of any increase in the unit price above the November-December base price shall also be paid.

Two final points should be mentioned. Defendant argues that an injunction will drive it out of business because the bubble oxygenator is its primary product. In effect, it argues for a compulsory license, which Congress did not see fit to include in the Patent Laws. The Court has found the infringement in this case to be willful and wanton. The argument must be rejected. *Id.*

Defendant also seeks to limit the injunction to oxygenators having a substantially continuous helical rib (along the heat exchanger coil) as opposed to a series of individual annual ribs. There is no evidence that such an oxygenator is being made. The request appears to be advisory. *See Velo-Bind, Inc. v. Minnesota Mining & Mfg. Co.*, 647 F.2d 965, 974-75 (9th Cir. 1981). Moreover, an injunction need not be limited to the specific accused device.

Such an injunction [after trial on the merits] prohibits infringement by any product, not just those involved in the original suit. The burden of avoiding infringement at the risk of contempt falls upon the one enjoined.

*Smith Int'l*, 718 F.2d 1581 n.8.

### Conclusion

The judgment entered herein shall include a permanent injunction consistent with the foregoing and an award of double damages.

To the extent the same are required, this Memorandum Opinion shall constitute my findings of fact and conclusions of law under F. R. Civ.P. 52(a).

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### SUPPLEMENTAL MEMORANDUM

As indicated in footnote 1 of the Memorandum Opinion, signed and filed concurrently herewith, this Supplemental Memorandum addresses and disposes of all remaining matters pending before me which are not addressed in the Memorandum Opinion. To the extent the same are necessary, this Supplemental Memorandum constitutes my findings of fact and conclusions of law under F. R. Civ. P. 52(a).

### Attorneys' Fees

Plaintiff has moved for attorneys' fees and costs under 35 U.S.C. §285, which provides:

The court in exceptional cases may award reasonable attorney fees to the prevailing party.

A finding of willful infringement meets the "exceptional case" criterion. *Rosemount, Inc. v. Beckman Instruments, Inc.*, 727 F.2d 1540, 1547 (Fed. Cir. 1984); *Central Soya Co. v. Geo. A. Hormel & Co.*, 723 F.2d 1573, 1577 (Fed. Cir. 1983). If the criterion is met, the award is discretionary. *Bayer Aktiengesellschaft v. Duphar Int'l Research B.V.*, 738 F.2d 1237, 1242 (Fed. Cir. 1984). "[S]ection 285 also permits the prevailing party to recover disbursements that were necessary for the case." *Lam, Inc. v. Johns-Manville Corp.*, 718 F.2d 1056 (Fed. Cir. 1983).

Here, plaintiff seeks \$806,280.65 as attorneys' fees and \$254,743.70 as expenses. Based on the finding of willful and wanton infringement, I find this to be an "exceptional" case; plaintiff is the prevailing party. I exercise my discretion, therefore, in favor of an award and proceed to review the reasonableness of the request.

I have reviewed the extensive and detailed showing made in support of the request. I find the requested amounts to be reasonable, except for the following items which will not be included in the award.

With respect to fees, I do not approve the charging of separate hourly rates for secretaries and word processing. This item totals approximately \$27,360.00 for Pennie & Edmonds ("Pennie"). The monthly statements of Knobbe, Martens, Olson & Bear ("Knobbe") do not break out the time for individual lawyers. It is apparent, however, that a large portion of Knobbe's September 1984 statement includes Mr. Knobbe's time in court as a percipient witness. This portion of the claim is disallowed. I estimate and disallow \$19,360.00, or two-thirds of the fees of \$29,042 claimed for that month. Where a litigant is represented by two law firms on different coasts, it is inevitable that

inefficiencies creep in and duplication occurs. Such is the case here and while it is a client's right to retain lawyers of its own choosing, the opponent ought not to be compelled to pay for double costs. I, therefore, reduce the remaining attorneys' fees by 10 percent. Thus, I find reasonable attorneys' fees to be as follows:

Pennie claimed	\$705,869
Less Secretaries	<u>- 27,360</u>
	\$678,509
Less 10 percent	<u>- 67,851</u>
	\$610,658
Knobbe claimed	\$100,411
Less witness time	<u>- 19,360</u>
	\$ 81,051
Less 10 percent	<u>- 8,105</u>
	\$ 72,946
Total attorneys' fees	\$683,604

With respect to costs, I disallow two claimed categories. Almost all of the travel claimed by Pennie is for trips between New York and California. If plaintiff retains New York counsel to try a case in California, defendant should not be made to pay the travel costs. These costs total approximately \$113,500.

Approximately \$22,900 is claimed as costs for services rendered by Mr. James B. Gambrell and his law firm at various times during the pendency of the action. The Court assumes this amount is not claimed as further attorneys' fees for the simple reason that they appear in the costs portion of the claim. The only support for this claim as costs would be necessary preparation of Mr. Gambrell as an expert witness. As such, the amount is grossly excessive and is reduced by 75 percent, or \$17,175.00. In summary, costs claimed by Pennie are reduced as follows:

Claimed	\$232,846
Less Travel	<u>- 113,500</u>
	\$119,346
Less Gambrell	<u>- 17,175</u>
Costs Allowed	\$102,171

I fully allow the Knobbe costs in the amount of \$21,897.

Following is a tabular summary of attorneys' fees and costs awarded in this action to plaintiff:

	<u>Fees</u>	<u>Costs</u>	<u>Total</u>
For Pennie & Edmonds	\$610,658	\$102,171	\$712,829
For Knobbe, Mortens	<u>72,946</u>	<u>21,897</u>	<u>94,843</u>
Totals	\$683,604	\$124,068	\$807,672

In awarding reasonable attorneys' fees and costs in the total sum of \$807,672 to plaintiff, I have considered and find the following to be true. Plaintiff's counsel, particularly lead trial counsel, enjoy a deservedly excellent reputation at the patent trial bar. The results obtained for the client cannot be characterized as anything other than exceedingly favorable. In view of the above, the hourly rates claimed are reasonable. After deductions made by the Court to the hours claimed, the remaining hours are reasonable for a jury trial of this length and magnitude. The trial consumed 21 trial days, produced over 3,600 pages of transcript and involved literally hundreds of exhibits.

#### Prejudgment Interest

Plaintiff has moved for an award of prejudgment interest under 35 U.S.C. §284. It is now clearly established that "prejudgment interest should be awarded under §284

absent some justification for withholding such an award." *General Motors Corp. v. Devex Corp.*, 103 S. Ct. 2058, 2063 (1983). Further, the statute "leaves the court some discretion in awarding prejudgment interest." *Id.*

Defendant contends that plaintiff is guilty of undue delay in initiating this action; therefore, that interest should not be awarded for this prefiling period. The '264 patent issued at the end of 1977 and the '288 patent in February 1979. Notice of infringement was given in November 1980, and suit was filed in July 1981. As in *General Motors*, *id.* at 2063-64, I reject defendant's contention of undue delay and conclude that no justification has been shown here for withholding the award of prejudgment interest.

The primary difference between the parties is the appropriate rate of interest to be applied and the method of computation. Elaborate post-verdict computations have been submitted. Defendant contends that the state law statutory rate of seven percent (7%), simple interest should be applied to after-tax dollars. Plaintiff contends that the prime rate, fully compounded, should be applied to the entire award. The interest rate to be employed, and the amount of the award is within the discretion of the trial court. *Lam, Inc.*, 718 F.2d at 1066. The purpose is to make the patent owner whole. *General Motors*, 103 S. Ct. at 2062-63.

I find that an award of prejudgment interest at the rate of 12 percent per annum (excepting 1978 and 1983 for which 10 percent is adequate) calculated and compounded at the end of each year is appropriate to make plaintiff whole. The prime rate fluctuated during that period between a low of 10 percent and a high of 18 percent plus. I further find that the "principal" award of \$17,528,000 should be allocated to each of the years in question in

proportion to the sales for that year as a percentage of the total sales for the period. A table setting forth this calculation of prejudgment interest is appended hereto as Appendix "A" and indicates total prejudgment interest of \$7,819,504 which amount I hereby award. No interest is allowed on "increased" damages. *Underwater Devices, Inc. v. Morrison-Knudsen Co.*, 717 F.2d 1380, 1389 (Fed. Cir. 1983).

#### Post-Trial Accounting

The jury's verdict was returned on October 12, 1984. Defendant has continued to make sales of its "BOS" series oxygenators and, in fact, argues that it should not be enjoined from making sales in the future. The most recent evidence, submitted by defendant, shows that through November 23, 1984, its dollar sales of the BOS series in 1984 was \$26,560,972. This is a daily sales rate (divided by 327) of \$81,226.21.

Based on this daily rate, on a post-verdict accounting, I further award to plaintiff the reasonable royalty of 12 percent found by the jury on sales for the 111-day period from October 13, 1984, through January 31, 1985:

Sales \$81,226 × 111 =	\$9,016,086
12% Royalty	× .12
Reasonable post-verdict royalty	\$1,081,930

No prejudgment interest is awarded on the post-verdict royalty sum.

Judgment shall be entered concurrently herewith, in accordance with the foregoing.

**APPENDIX "A"**  
**CALCULATION OF PREJUDGMENT INTEREST**

Year	"BOS" Sales	% of Total	Share of Damages	Year-End Interest
1978	6,681,000	05	876,400	87,640.00
1979	12,331,000	08	1,402,240	283,953.60
1980	17,494,000	12	2,103,360	570,431.23
1981	22,220,000	15	2,629,200	954,386.98
1982	27,259,000	19	3,330,320	1,468,551.82
1983	30,912,000	21	3,680,880	1,738,736.37
1984	28,346,000	20	3,505,600	2,715,804.00
Totals	\$145,243,000	100%	\$17,528,000	\$7,819,504.00

- Notes: (1) Interest calculated at 12 percent for all years, except 1978 and 1983, which are calculated at 10 percent.
- (2) Each year's interest is calculated on the sum of aggregate share of damages at end of year, plus interest accrued in prior years. E.g., 1979 interest is calculated on 876,400 + 1,402,240 + 87,640 = 2,366,280.

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**Order Denying Stay**

In its opposition to the granting of injunctive relief, defendant requests that any injunction issued be stayed pending appeal. The only ground tendered is "to avoid harsh effects on innocent third parties."

Upon consideration, the argument must be rejected. The interests of third parties have been considered in framing the injunction. A six months' transition period is provided to protect such interests, if defendant chooses to take advantage of it.

Defendant's request to stay the injunction pending appeal, F. R. Civ. P. 62(c), is denied. See F. R. App. P. 8(a).

**Judgment and Permanent Injunction**

This action having been tried to a jury on all issues triable to a jury as a matter of right and to the Court on all remaining issues, in accordance with the Special Verdict returned on October 12, 1984, and the Memorandum Opinion and Supplemental Memorandum signed and filed concurrently herewith,

**It Is Ordered And Adjudged that the counterclaim is dismissed on the merits and that plaintiff Shiley, Inc., shall recover of defendant Bentley Laboratories, Inc., the following:**

Damages for lost profits	\$17,528,000
Increased damages	17,528,000
Prejudgment interest	7,819,504
Post-verdict accounting	1,081,930
Attorneys' fees and costs	807,672
For a total award in the sum of	\$44,765,106

In accordance with 28 U.S.C. §1961(a), this judgment shall bear interest at the rate of 9.09 percent per annum.

**It Is Further Ordered, Adjudged And Decreed:**

1. Defendant Bentley Laboratories, Inc., its officers, agents, servants, employees and attorneys and any and all persons in active concert or participation with them who receive actual notice of this Permanent Injunction by personal service or otherwise, shall be and hereby are perpetually enjoined from making, using or selling Bentley's BOS blood oxygenators or any other product embodying the invention of any of claims 3, 4, 6, 8, 11, 12, 17 and 18 of U.S. Patent 4,065,264 and claims 1, 2 and 3 of U.S. Patent 4,138,288 (the "patent claims in suit") or from otherwise infringing any of the patent claims in suit.

The term "making, using or selling" as used herein shall include the manufacture, production, advertising, promotion, offering for sale, display, distribution and sale of BOS blood oxygenators or any other product embodying the invention of any of the patent claims in suit.

2. Notwithstanding the provisions of paragraph 1, above, defendant may make, use and sell the BOS blood oxygenator until July 31, 1985, but only in strict compliance with the provisions of this paragraph 2.

(a) For all BOS blood oxygenators sold by defendant during the period February 1, 1985 through July 31, 1985, defendant shall pay to plaintiff the following royalties:

(i) on the "base selling price" (as hereinafter defined): a royalty of twelve percent (12%) on all sales for the period February 1 to March 31; a royalty of fifteen percent (15%) on all sales for the period April 1 to May 31; and a royalty of eighteen percent (18%) on all sales for the period June 1 to July 31.

(ii) On any excess in the unit selling price above the base selling price a royalty of fifty percent (50%) of such excess.

As used in this paragraph 2(a), the term "base selling price" means for each model of the BOS (e.g., the BOS-10) the average net sales price per unit for all units sold by defendant during the months of November and December 1984.

(b) The royalties payable under paragraph 2(a) shall be paid on a monthly basis, within twenty (20) days after the end of the month. Payment shall be accompanied by a detailed royalty accounting statement.

(c) Plaintiff shall have the right on reasonable notice to examine the books and records of defendant to confirm

the accuracy of defendant's royalty accounting statements. Such examination shall be done by an independent public accountant of plaintiff's selection. If substantial discrepancies (in excess of 5 percent for any month) are found, the cost of such examination shall be paid for by defendant; otherwise by plaintiff.

(d) Defendant shall give written notice of the terms of this Permanent Injunction to all of its customers within 30 days of the date hereof.

3. The Court reserves jurisdiction to modify and enforce this Permanent Injunction.

UNITED STATES DISTRICT COURT  
CENTRAL DISTRICT OF CALIFORNIA

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Civil Action No. 81-3262-AWT  
Hearing Date: March 11, 1985  
Hearing Time: 10:00 a.m.

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SHILEY, INC., a California corporation,

*Plaintiff,*

vs.

BENTLEY LABORATORIES, INC., a California corporation,

*Defendant.*

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BENTLEY LABORATORIES, INC., a California corporation,

*Counter-Claimant,*

vs.

SHILEY, INC., a California corporation,

*Counter-Defendant.*

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ORDER AMENDING JUDGMENT AND  
PERMANENT INJUNCTION

This cause came on to be heard on motion of defendant, Bentley Laboratories, that the Judgment and Permanent Injunction entered in this cause on February 5, 1985, be amended pursuant to Rule 59(e) of the Federal Rules of Civil Procedure. The court having heard the argument of counsel and being fully advised, it is

ORDERED that the second paragraph of the Judgment and Permanent Injunction be, and the same hereby is, amended to read as follows:

"IT IS ORDERED AND ADJUDGED that so much of defendant's counterclaim as seeks a declaration that claims 3, 4, 6, 8, 11, 12, 17 and 18 of U.S. Patent No. 4,065,264 and that claims 1, 2 and 3 of U.S. Patent No. 4,138,288 are invalid, unenforceable and not infringed is dismissed on the merits, the remainder of defendant's counterclaim is dismissed without prejudice as being moot, and that plaintiff Shiley, Inc., shall recover of defendant Bentley Laboratories, Inc., the following:

Damages for lost profits	\$17,528,000
Increased damages	17,528,000
Prejudgment interest	7,819,504
Post-verdict accounting	564,961
Attorneys' fees and costs	<u>807,672</u>
For a total award in the sum of	\$44,248,137"

Dated: MAR 11, 1985

/s/ A. Wallace Tashima,  
United States District Judge

Entered: March 13, 1985

UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT

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Appeal No. 85-2226

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SHILEY, INC.,

*Plaintiff-Appellee,*

vs.

BENTLEY LABORATORIES, INC.,

*Defendant-Appellant.*

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JUDGMENT

ON APPEAL from the U.S. DISTRICT COURT OF  
CALIFORNIA, CENTRAL DISTRICT

IN CASE no(s). CV 81-3262-AWT

This CAUSE having been heard and considered, it is  
ORDERED AND ADJUDGED:

AFFIRMED

ENTERED BY ORDER  
OF THE COURT

/s/ Francis X. Gindhart  
Clerk

DATED June 16, 1986

ISSUED AS A MANDATE: September 9, 1986  
COSTS AGAINST THE APPELLANT:

Printing .....	\$701.32
Total .....	\$701.32

UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT

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Appeal No. 85-2226

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SHILEY, INC.,

*Plaintiff-Appellee,*

vs.

BENTLEY LABORATORIES, INC.,

*Defendant-Appellant.*

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Before BALDWIN, SMITH, and NEWMAN, *Circuit Judges.*

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ORDER

A petition for rehearing having been filed in this case,  
UPON CONSIDERATION THEREOF, it is  
ORDERED that the petition for rehearing be, and the  
same hereby is, denied.

The suggestion for rehearing in banc is under considera-  
tion.

FOR THE COURT

/s/ Francis X. Gindhart  
Clerk

July 31, 1986

Date

cc: Mr. Roy E. Hofer  
Mr. Gidon D. Stern

UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT

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Appeal No. 85-2226

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SHILEY, INC.,

*Plaintiff-Appellee,*

vs.

BENTLEY LABORATORIES, INC.,

*Defendant-Appellant.*

---

ORDER

A suggestion for rehearing in banc having been filed in this case,

UPON CONSIDERATION THEREOF, it is

ORDERED that the suggestion for rehearing in banc is declined.

FOR THE COURT

/s/ Francis X. Gindhart  
Clerk

9/8/86

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cc: Mr. Roy E. Hofer  
Mr. Gidon D. Stern

## STATUTORY PROVISIONS INVOLVED

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### 35 U.S.C. § 284. Damages

Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.

When the damages are not found by a jury, the court shall assess them. In either event the court may increase the damages up to three times the amount found or assessed.

The court may receive expert testimony as an aid to the determination of damages or of what royalty would be reasonable under the circumstances.

### 35 U.S.C. § 285. Attorney fees

The court in exceptional cases may award reasonable attorney fees to the prevailing party.

## TABLE 1

**REGIONAL CIRCUIT CASES CONSIDERING  
THE WILLFULNESS ISSUE (1979 THROUGH 1982)\***

**WILLFUL INFRINGEMENT FOUND**

1. *Novo Industri A/S v. Travenol Laboratories, Inc.*, 677 F.2d 1202 (7th Cir. 1982)
2. *Paper Converting Mach. Co. v. Magna-Graphics Corp.*, 680 F.2d 483 (7th Cir. 1982)
3. *Lam, Inc. v. Johns-Manville Corp.*, 668 F.2d 462 (10th Cir.), cert. denied, 456 U.S. 1007 (1982)
4. *Milgo Elec. Corp. v. United Business Communications, Inc.*, 623 F.2d 645 (10th Cir.), cert. denied, 449 U.S. 1066 (1980)

**NO WILLFUL INFRINGEMENT**

1. *Square Liner 360°, Inc. v. Chisum*, 691 F.2d 362 (8th Cir. 1982)
2. *Devex Corp. v. General Motors Corp.*, 667 F.2d 347 (3d Cir. 1981), aff'd, 461 U.S. 648 (1983)
3. *Deere & Co. v. International Harvester Co.*, 658 F.2d 1137 (7th Cir.), cert. denied, 454 U.S. 969 (1981)
4. *Wilden Pump & Eng'g Co. v. Pressed & Welded Prods. Co.*, 655 F.2d 984 (9th Cir. 1981)
5. *Velo-Bind, Inc. v. Minnesota Mining & Mfg. Co.*, 647 F.2d 965 (9th Cir.), cert. denied, 454 U.S. 1093 (1981)

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\* Cases in which the Court remanded for additional findings on willful infringement are not included.

6. *Western Elec. Co. v. Stewart-Warner Corp.*, 631 F.2d 333 (4th Cir. 1980), cert. denied, 450 U.S. 971 (1981)
7. *Saginaw Prods. Corp. v. Eastern Airlines, Inc.*, 615 F.2d 1136 (6th Cir. 1980)
8. *John Zink Co. v. National Airoil Burner Co.*, 613 F.2d 547 (5th Cir. 1980), cert. denied, 454 U.S. 1055 (1981)
9. *Eltra Corp. v. Basic Inc.*, 599 F.2d 745 (6th Cir.), cert. denied, 444 U.S. 942 (1979)

Total: 13 Cases

## TABLE 2

**CAFC CASES CONSIDERING THE  
WILLFULNESS ISSUE (1983 TO DATE)\***

**WILLFUL INFRINGEMENT FOUND**

1. *Pacific Furniture Mfg. Co. v. Preview Furniture Corp.*, 800 F.2d 1111 (Fed. Cir. 1986)
2. *Shiley, Inc. v. Bentley Laboratories, Inc.*, 794 F.2d 1561 (Fed. Cir. 1986)
3. *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565 (Fed. Cir. 1986)
4. *S.C. Johnson & Son, Inc. v. Carter-Wallace, Inc.*, 781 F.2d 198 (Fed. Cir. 1986)
5. *CPG Prods. Corp. v. Pegasus Luggage, Inc.*, 776 F.2d 1007 (Fed. Cir. 1985)
6. *Kori Corp. v. Wilco Marsh Buggies & Draglines, Inc.*, 761 F.2d 649 (Fed. Cir.), cert. denied, 106 S. Ct. 230 (1985)
7. *Rosemount, Inc. v. Beckman Instruments, Inc.*, 727 F.2d 1540 (Fed. Cir. 1984)
8. *Leinoff v. Louis Milona & Sons, Inc.*, 726 F.2d 734 (Fed. Cir. 1984)
9. *Central Soya Co. v. Geo. A. Hormel & Co.*, 723 F.2d 1573 (Fed. Cir. 1983)
10. *Underwater Devices, Inc. v. Morrison-Knudsen Co.*, 717 F.2d 1380 (Fed. Cir. 1983)

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\* Cases in which the Court remanded for additional findings on willful infringement are not included.

**NO WILLFUL INFRINGEMENT**

1. *Rolls-Royce Ltd. v. GTE Valeron Corp.*, 800 F.2d 1101 (Fed. Cir. 1986)
2. *Radio Steel & Mfg. Co. v. MTD Prods., Inc.*, 788 F.2d 1554 (Fed. Cir. 1986)
3. *Laitram Corp. v. Cambridge Wire Cloth Co.*, 785 F.2d 292 (Fed. Cir.), cert. denied, 107 S. Ct. 85 (1986)
4. *American Original Corp. v. Jenkins Food Corp.*, 774 F.2d 459 (Fed. Cir. 1985)
5. *King Instrument Corp. v. Otari Corp.*, 767 F.2d 853 (Fed. Cir. 1985)
6. *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613 (Fed. Cir.), cert. dismissed, 106 S. Ct. 340 (1985)
7. *State Indus. Inc. v. A.O. Smith Corp.*, 751 F.2d 1226 (Fed. Cir. 1985)

Total: 17 Cases

## CAFC CASES HOLDING

Case Name	Panel (Opinion Author Listed First)	Did Patent Issue Before Defendant Started Selling?	Was Defendant Aware of Patent Before It Started Selling?	Was Defendant Aware of Patent Before Notice of Infringement?
<i>Rolls Royce</i> .....	Markey, Friedman, Re	YES	YES	YES
<i>State Industries</i> .....	Rich, Baldwin, Kashiwa	NO	NO (only "Patent Applied For")	NO
<i>American Original</i> .....	Friedman, Nichols, Kashiwa	YES	NO	YES
<i>Radio Steel</i> .....	Friedman, Baldwin, Newman	YES	YES	NO
<i>King Instrument</i> .....	Davis, Markey, Skelton	YES	YES	YES
<i>Shatterproof Glass</i> .....	Newman, Smith, Cowen	YES	YES	YES
<i>Laitram</i> .....	Bissell, Baldwin, Nichols	YES	YES	YES
<i>Shiley v. Bentley</i> .....	Baldwin, Smith, Newman	NO	NO (only "Patent Pend.")	YES

\* Cases in which the Court remanded for additional findings on willful infringement.

## D WILLFUL INFRINGEMENT \*

TABLE 3

Opinion of Counsel						
Did Defendant Obtain Opinion After Became Aware Of Patent?	Did Defendant Obtain Opinion Before Notice Of Infringement?	Type Of Opinion	Was Opinion Rendered By Outside Counsel?	Did Counsel Review File History?	Was Defendant Held To Have Copied?	
NO	NO	-	-	-	NO	
NO	NO	-	-	-	NO (but had patentee's device)	
NO	NO	-	-	-	NO	
YES (1)	NO	ORAL	YES	NO	NO	
NO	NO	-	-	-	NO (but had patentee's device)	
NO	NO	-	-	-	NO	
NO	NO	-	-	-	NO (but had patentee's device)	
YES (2)	YES (2)	ORAL AND WRITTEN	YES	?	NO (but had patentee's device)	

gement are not included.